## Department Of Electronics & Communication Engineering

मोतीलाल नेहरू राष्ट्रीय प्रौद्योगिकी संस्थान इलाहाबाद

# MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD इलाहाबाद- 211004

ALLAHABAD-211004

Advertisement No-ECBK04/2022/Project Staff

Date: 14/09/2022

## Advertisement for the Post of Junior Research Fellow (On Contract)

Applications are invited from Indian nationals for the post of Junior Research Fellow (on contract) in research project entitled "Development and Hardware Implementation of Deep Learning Based Preprocessing Techniques for Thermal Imaging Applications", Sanction letter no. / 12091TS2122R613, dated 31.03.2022, sponsored by IRDE (Instrument Research and Development Establishment) DRDO, Dehradun.

The duly completed application (soft copy in any form) on prescribed format along with scanned copies of supporting documents must reach to email id: <a href="mailto:singhbasant@mnnit.ac.in">singhbasant@mnnit.ac.in</a> (email id of Dr Basant Kumar, Electronics and Communication Engineering Department) with the subject of the email as "Application for JRF (on contract) in "IRDE-CARS Project" on or before 04/10/2022.

Description and Objectives of the Project: Pre-processing of the acquired thermal image is needed due to presence of non-uniform illumination, noise, bad pixels and poor contrast. Development and implementation of low-delay pre-processing/ enhancement techniques on acquired thermal images is the pre-requisite for the accuracy of the object detection, boundary detection and other techniques needed for real-time identification and track of targets. Proposed research work aims to study and implement low-delay, and accurate Image processing as well as Deep Learning based algorithms for the pre-processing of the acquired thermal images. Subsequently, attempts will be made for implementation of these algorithms on FPGA boards.

The position is purely temporary and will be governed by the funding agency rules & service conditions of Office of the Dean (Research & Consultancy), MNNIT Allahabad.

Number of Position : 2 (Two)

Essential Qualifications: M. Tech. / M.E. in Electronics Engineering/ Electronics and

Instrumentation Engineering / Signal Processing / Embedded

Systems / VLSI

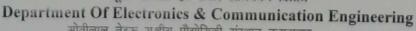
or

B. Tech. in Electronics Engineering / Electronics & Communication Engg./ Electronics & Instrumentation Engg, with good academic and

research credentials

Fellowship : Rs. 25,000.00 per month (Consolidated)

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**Desirable Experience** 

One year research experience in the area of image/ video processing,

Machine Learning, Digital hardware design on FPGA.

Age Limit

35 years on the last date of application for M.Tech. and 25 years for B.Tech.

Tenure of Appointment:

Appointment will be made on contract basis for a period of one year initially,

which may be extended depending on the performance evaluation on yearly

basis till the end of project.

#### Note:

1. The applicant will be responsible for the authenticity of information, other documents and photographs submitted.

2. The Institute reserves the right to accept application at any time, and consider candidates of exceptional credentials without applications.

3. Qualification and experience may be relaxed by the Institute at any point of time for otherwise exceptional candidates. Mere, possessing the prescribed qualification does not ensure that the candidate would be called for Interview. The Candidates will be shortlisted on the basis of merit and need of the project.

4. Shortlisted Candidates will be informed by e-mail about the interview date. So, the candidate must provide valid E -mail IDs in their applications.

5. Shortlisted candidates have to present themselves for the interview on the interview date with updated CV, publications if any, and original and attested photocopies of mark sheets/ certificates in support of their academic qualifications. The mode of interview (physical/ online) will be informed to the shortlisted candidates via the email id provided in the application form.

6. Applicants in employment (private, government or any other organization) are required to submit a "No Objection Certificate" from the employer at the time of interview.

7. No TA/DA will be paid for appearing in the interview (In case of interview in physical mode)

Name of Principal Investigator : Dr. Basant Kumar

Designation

Associate Professor

Department

**Electronics and Communication Engineering** 



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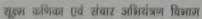
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## ALLAHABAD-211004

		For office use only		
	Application	on No		
	APPLICATION FORM			
Advt.No	Dated	Dated		
Research Project Entitled	Development and Hardware Implementation of Deep Learning Based Pre-processing Techniques for Thermal Imaging Applications			
Sanction letter & Date	Sanction letter no. / 12091TS2122R613, dated 31.03.2022	Self Attested recent passport size Photograph		
Funding Agency	IRDE (Instrument Research and Development Establishment) DRDO, Dehradun			
Name of P.I.	Dr. Basant Kumar			
Name of Position	Junior Research Fellow (on contract)			
Department/Section	Electronics & Communication Engineering			
Nome of the Condidat	1. //			

1.	Name of the Candidate (In						Branch .
	Capital letter)						
2.	Sex (Male/Female)						
3.	Marital Status (Married/Unmarried)				1		
4.	Date of Birth						
5.	Age as on last date of application	Years	Months	Days			
6.	Father's/Husband's Name						
7.	Present/Contact Address						
8.	Permanent Address				2000		13.30
9.	Mobile No.						
10.	E-mail			THE	BILL		
11.	Nationality						
12.	Category	Gen/SC/ST/OBC/PH	(enclosed a	attested o	copy of co	ertificate) and wo	men
13.	GATE	Valid up to	Scor	re/Rank_			
14.	Educational Qualification						
	Qualification	Subject/Discipline	Board/Institute/	Univ.	Year	% of marks	Division







\*Title of M.E./M.Tech. Thesis:

# Department Of Electronics & Communication Engineering भोतीलाल बेहरू राष्ट्रीय प्रौद्योगिकी संस्थान इलाहाबाद

## MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD

इलाहाबाद- 211004 ALLAHABAD-211004

10th or equivalent			
12th or equivalent		THE REAL PROPERTY.	
Diploma, if any			
BA/B Sc /B E /B Tech.			
M.A./M.Sc.			
M.Phil./M.E./M.Tech*			
Ph.D*			

Note for the	*Those candidates e respective admission	who wish to be ad as available on th	mitted as student for e Institute website.	r higher degree	( Ph.D.) must fulfil	l at least the	minimum e	eligibility		
15.	Details of Experience	e in chronological	order. Enclose a sep	arate sheet dul	y authenticated under	er your signa	ture if neces	ssary		
	Organization	Position	Salary/ Emoluments	Nature of Duties	Nature of appointment	Period of Experience Year Month Days				
							1399.39			
16.	Research Publications (Attach list):-				Numbers :					
SCI Journals :				7,5,11,5						
Non S	CI Journals :	33 7 5 7	San							
Interna	ational Conference/Sem	ninar ./ Symposium	Proceeding:							
Nation	al Conference/Seminar	/Symposium Pro	ceeding:							
17.	Any other information									
18.	Indicated whether you Allahabad. Yes/No (			ee* at MNNIT,						

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## DECLARATION

I hereby declare that all the statements made in this application are true and complete and nothing has been concealed/ distorted. I am aware that, if at any time I am found to have concealed/distorted any material information, my engagement is liable to be summarily terminated without notice.

Place:

Date:

(Signature of the Applicant)

Enclosure- Self attested copy of documents

- 6. Proof of Date of Birth
- Mark sheets & certificates of all the examination passed
   Category Certificate, if applicable
   GATE score card, if passed

- 10. Experience certificate, if any